Group Art Unit: 2142 Application No. 10/026,385

Filed: 12/21/2001

Attorney Docket No.: RSW920010210US1

## **REMARKS**

These remarks are set forth in response to the non-final office action mailed March 21, 2005 (the "Office Action"). As this amendment has been timely filed within the three-month statutory period, neither an extension of time nor a fee is required. Presently, claims 1 through 9 are pending in the Patent Application of which claims 1, 6, 8 and 9 are independent in nature. In paragraphs 1 and 2 of the Office Action, the Examiner has rejected claims 2, 4 and 7 under 35 U.S.C. § 112, paragraph 2 as being indefinite for reciting "JAVA(TM)". Also, in paragraphs 3 through 9, claims 1 through 4 have been rejected under 35 U.S.C. § 102(b) as being anticipated by United States Patent No. 6,753,889 to Najmi. Finally, in paragraphs 10 through 13, claims 5 through 9 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Najmi in view of United States Patent No. 6,684,390 to Goff.

In response, the Applicant has amended claims 2, 4 and 7 to remove the trademark designation for the non-trademark usage of the term Java to refer to the Java programming environment. In this regard, the term Java refers to a programming environment produced by multiple manufacturers aside from Sun Microsystems, Inc. Accordingly, the term Java is no more a trademark than the term C++ or Pascal or C#. Thus, the Applicant respectfully requests the withdrawal of the rejection under 35 U.S.C. § 112, paragraph 2 due to the Applicant's amendments and the foregoing explanation of those amendments.

Prior to addressing the rejections on the art, a brief review of the Applicant's invention is appropriate. The Applicant has invented a messaging system which allows for the creation of multiple publisher and subscriber threads for a selected topic in a publish/subscribe messaging system. In respect to the "multiple publisher and subscriber threads", the Applicant's invention

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addresses the known deficiencies in the art in that prior to the Applicant's invention, only a single thread could be used to service a messaging system subscriber receiving any published message for a customer defined topic in which it is interested. In consequence, if enough message traffic were to have been generated for that topic, a single thread in a multithreaded virtual machine could become overrun fairly quickly.

To address this deficiency, in the Applicant's invention, selected message topics in a message server can be subdivided into individual subtopics on a per-subscriber or per-publisher basis. Subsequently, requests to subscribe to messages from the selected message topic can be intercepted and associated with a suitable one of the subtopics in a separate thread. In this way, subscriber threads can be established on a subtopic basis rather than a complete topic basis. Hence, message traffic overruns can be avoided an enhanced scalability provided for in the messaging system.

Turning now to the rejections on the art, Najmi has been cited for the proposition that every limitation recited in claims 1 through 4 is apparent in the Najmi reference. The Applicant respectfully disagrees. Specifically, Najmi relates to a message adapter generation tool for use in a B2B system. The message adapter generation tool can be used to convert and forward JMS messages from sending partners to receiving partners in the B2B system. Najmi, however, fails to discuss the manipulation of topics in a JMS system. In fact, no where in Najmi is it stated that a topic can be subdivided into subtopics, nor is it stated anywhere that messages posted to topics can be instead posted to subtopics.

The Examiner has equated "subscription rules" as discussed in column 7, lines 51-54 of Najmi with topics. It is not proper, however, to have done so. The American Heritage

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Dictionary of the English Language, Fourth Edition defines the word "subtopic" to mean "One of the divisions into which a main topic may be divided." In Najmi, column 7, line 63 through column 8, line 9, "subscription rule" is defined as providing "a B2B contract"--hardly a topic or a subtopic in a messaging system as described in detail in pages 2 and 3 of the Applicant's specification. A complete reproduction of the Najmi definition of "subscription rule" follows for the Examiner's convenience:

The <u>subscription rule</u> provides <u>a B2B contract</u> between a sending party and a receiving party in that it identifies a particular type of document (such as a purchase order), a particular format of the document associated with a particular partner (or partners), a particular transport protocol used to transport the document from one partner to another, and a particular partner adapter used to communicate with the partner system.

## Thus, it is obvious that a subscription rule is not a subtopic.

Goff fails to cure the failings of Najmi as a reference. Goff teaches only a method and a system for improving the execution speed of Java programs. Specifically, Goff provides multi-threaded execution inside a single Java program while not suffering performance penalty due to thread switching. Goff, however, completely lacks any discussion of a messaging system. In fact, while the Examiner stated,

"A thread or pool of threads may be assigned to a JVM or its JAVA application which can be based on a topic or subtopic",

this language (including any reference to topic or subtopic) cannot be found anywhere within the Goff reference. As evidence, the entirety of column 5, line 66 through column 6, line 12 is reproduced for the convenience of the Examiner:

Specifically, a PCL is a non-JAVA application written for and executed by the host processor. The pre-existing PCL has the

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normal duties of loading and initializing a JVM. Now in its modified form, the PCL will perform non-host processor recruitment (allocation), assignment and initialization. The PCL also establishes the runtime I/O bridge between the various I/O classes defined in the JAVA I/O package and host computer system 210. Moreover, the PCL stores the JAVA executables (i.e., the JVM and associated application, or the JVM Execution Engine and associated thread) into non-host memory 260. When given execution time by host computer system 210, the PCL posts and retrieves I/O control and data information between host memory 230 and non-host memory 260.

As it will be apparent from the foregoing citation, Goff has been misquoted. Yet, 37 C.F.R. § 1.104(c) requires that in formulating a rejection based upon anticipation or obviousness, an Examiner must designate the particular part relied upon as nearly as practicable. In this circumstance, however, the Examiner has not designated the particular part relied upon in Goff for the proposition that threads can be used in association with topics or subtopics.

The Applicant further observes that the Examiner has not provided a requisite motivation to support the ultimate legal conclusion of obviousness under 35 U.S.C. § 103. As the Examiner will recognize, a source must be identified for the requisite motivation to modify a particular reference in a particular manner to arrive at a specifically claimed invention. See Smiths

Industries Medical System v. Vital Signs, 183 F.3d 1347 (Fed. Cir. 1999). In this circumstance, however, the Examiner has not identified a source for the requisite motivation. Rather, the Examiner has provided his own reasoning as the motivation to combine as follows: "The motivation to incorporate thread assignments by subtopic insures performance is enhanced."

The Examiner has provided no evidentiary support for this reasoning and the Examiner has not cited any portion of either Goff or Najmi in support of this motivation. The United States Court of Appeals for the Federal Circuit, however, has stated quite clearly that the

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requisite motivation to combine cannot be based upon the Examiner's own reasoning and stated

motivation, nor can the Examiner engage in hindsight reasoning. See Panduit Corp v. Dennison

Mfg. Co., 774 F.2d 1082 (Fed. Cir. 1985). Thus, the Examiner has not proven a prima facie case

of obviousness for the combined teachings of Najmi and Goff.

In as much as Najmi does not teach the subdivision of topics into subtopics in a

messaging system, and Goff only relates to the use of multiple threads in a Java virtual machine

without respect to messaging services, the Applicants believe that claims 1 through 9 distinguish

over the cited art and stand patentable and ready for an indication of allowance. To that end, the

Applicant respectfully requests the withdrawal of the rejections under 35 U.S.C. §§ 102(b),

103(a) and 112 second paragraph based upon the Applicants' amendments to the claims, and

owing to the foregoing remarks. This entire application is now believed to be in condition for

allowance. Consequently, such action is respectfully requested.

Respectfully submitted,

Date: June 21, 2005

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